**3GPP TSG-CT WG3 Meeting #136 *C3-244257r1***

**Maastricht, NL, 19 - 23 August, 2024 (Revision of C3-244257)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.122** | **CR** | **0803** | **rev** | **3** | **Current version:** | **18.6.0** |  |
|  | | | | | | | | |
| *For* [***HE***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)***LP*** *on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
|  | | | | | | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | | |
| ***Title:*** | Corrections to loss of connectivity in MonitoringEvent API | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson, CEWiT | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | NBI19 | | | | |  | ***Date:*** | | | 2024-07-26 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **F** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19) Rel-20 (Release 20)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | In clause 5.3.2.3.2, the description of "lossOfConnectReason" attribute within the MonitoringEventReport data type refers to 3GPP TS 29.336 [11] clause 8.4.58, which is only for 4G while not applicable for 5G. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Corrected the table descriptions and OpenAPI description for the "lossOfConnectReason" attribute in the MonitoringEventReport data type. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | misaligned description for the "lossOfConnectReason" attribute in the MonitoringEventReport data type. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | 5.3.2.3.2, A.3 | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR introduces backwards compatible correction in the OpenAPI of MonitoringEvent API. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | **Rev 2 provides below updates:**  Changed to NBI19 WI and Cat F, corrected table descriptions for the "lossOfConnectReason" attribute within the MonitoringEventReport data type. | | | | | | | | |

**Additional discussion(if needed):**

**Proposed changes:**

\*\*\* 1st Change \*\*\*

##### 5.3.2.3.2 Type: MonitoringEventReport

This data type represents a monitoring event notification which is sent from the SCEF to the SCS/AS.

Table 5.3.2.3.2-1: Definition of type MonitoringEventReport

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Attribute name | Data type | Cardinality | Description | Applicability (NOTE 1) |
| imeiChange | AssociationType | 0..1 | If "monitoringType" is "CHANGE\_OF\_IMSI\_IMEI\_ASSOCIATION", this parameter shall be included to identify the event of change of IMSI-IMEI or IMSI-IMEISV association is detected.  Refer to 3GPP TS 29.336 [11] Clause 8.4.22. | Change\_of\_IMSI\_IMEI\_association\_notification |
| externalId | ExternalId | 0..1 | External identifier.  This attribute may also be present in the monitoring event subscription one-time response message, if the "UEId\_retrieval" feature is supported and the corresponding request message includes the "ueIpAddr" attribute or the "ueMacAddr" attribute.  (NOTE 2) |  |
| appId | string | 0..1 | Contains the identifier of the detected application. (NOTE 4) | AppDetection\_5G |
| pduSessInfo | PduSessionInformation | 0..1 | Represents the PDU session information related to the detected application.  If "monitoringType" is "APPLICATION\_START" and/or "APPLICATION\_STOP", this attribute shall be present, if available, to indicate the application traffic detection details. | AppDetection\_5G |
| idleStatusInfo | IdleStatusInfo | 0..1 | If "idleStatusIndication" in the "MonitoringEventSubscription"sets to "true", this parameter shall be included to indicate the information when the UE transitions into idle mode. | Ue-reachability\_notification,  Availability\_after\_DDN\_failure\_notification |
| locationInfo | LocationInfo | 0..1 | If "monitoringType" is "LOCATION\_REPORTING", this parameter shall be included to indicate the user location related information. | Location\_notification, eLCS |
| locFailureCause | LocationFailureCause | 0..1 | Indicates the location positioning failure cause. | eLCS |
| lossOfConnectReason | integer | 0..1 | If "monitoringType" is "LOSS\_OF\_CONNECTIVITY", this parameter shall be included if available to identify the reason why loss of connectivity is reported.  See also 3GPP TS 29.336 [11] clause 8.4.58 for pre-5G. | Loss\_of\_connectivity\_notification |
| unavailPerDur | DurationSec | 0..1 | If "monitoringType" is "LOSS\_OF\_CONNECTIVITY", then this parameter shall be included if available to identify the UE’s Unavailability Period Duration. | Loss\_of\_connectivity\_notification\_5G |
| maxUEAvailabilityTime | DateTime | 0..1 | If "monitoringType" is "UE\_REACHABILITY", this parameter may be included to identify the timestamp until which a UE using a power saving mechanism is expected to be reachable for SM delivery.  Refer to Clause 5.3.3.22 of 3GPP TS 29.338 [34]. | Ue-reachability\_notification |
| msisdn | Msisdn | 0..1 | Identifies the MS internal PSTN/ISDN number.  (NOTE 2) |  |
| monitoringType | MonitoringType | 1 | Identifies the type of monitoring type as defined in clause 5.3.2.4.3. |  |
| uePerLocationReport | UePerLocationReport | 0..1 | If "monitoringType" is "NUMBER\_OF\_UES\_IN\_AN\_AREA", this parameter shall be included to indicate the number of UEs found at the location.  If "subType" indicates "AERIAL\_UE" subscription type, this parameter shall be included to indicate the number of UAV’s found at the location. | Number\_of\_UEs\_in\_an\_area\_notification, Number\_of\_UEs\_in\_an\_area\_notification\_5G |
| plmnId | PlmnId | 0..1 | If "monitoringType" is "ROAMING\_STATUS" and "plmnIIndication" in the "MonitoringEventSubscription" sets to "true", this parameter shall be included to indicate the UE's serving PLMN. | Roaming\_status\_notification |
| reachabilityType | ReachabilityType | 0..1 | If "monitoringType" is "UE\_REACHABILITY", this parameter shall be included to identify the reachability of the UE.  Refer to 3GPP TS 29.336 [11] Clause 8.4.20. | Ue-reachability\_notification |
| roamingStatus | boolean | 0..1 | If "monitoringType" is "ROAMING\_STATUS", this parameter shall be set to "true" if the new serving PLMN is different from the HPLMN. Set to false or omitted otherwise. | Roaming\_status\_notification |
| failureCause | FailureCause | 0..1 | If "monitoringType" is "COMMUNICATION\_FAILURE", this parameter shall be included to indicate the reason of communication failure. | Communication\_failure\_notification |
| eventTime | DateTime | 0..1 | Identifies when the event is detected or received.  Shall be included for each group of UEs. |  |
| pdnConnInfoList | array(PdnConnectionInformation) | 0..N | If "monitoringType" is "PDN\_CONNECTIVITY\_STATUS", this parameter shall be included to indicate the PDN connection details. | Pdn\_connectivity\_status |
| dddStatus | DlDataDeliveryStatus | 0..1 | If "monitoringType" is "DOWNLINK\_DATA\_DELIVERY\_STATUS", this parameter shall be included to identify the downlink data delivery status detected by the network. | Downlink\_data\_delivery\_status\_5G |
| dddTrafDescriptor | DddTrafficDescriptor | 0..1 | If "monitoringType" is "DOWNLINK\_DATA\_DELIVERY\_STATUS", this parameter shall be included to identify the downlink data descriptor impacted by the downlink data delivery status change. | Downlink\_data\_delivery\_status\_5G |
| maxWaitTime | DateTime | 0..1 | If "monitoringType" is "DOWNLINK\_DATA\_DELIVERY\_STATUS", this parameter may be included to identify the time before which the data will be buffered. | Downlink\_data\_delivery\_status\_5G |
| apiCaps | array(ApiCapabilityInfo) | 0..N | If "monitoringType" is "API\_SUPPORT\_CAPABILITY", this parameter shall be included to indicate the availability of all APIs supported by the serving network or the availability of interested APIs, indicated by the "apiNames" attribute in "MonitoringEventSubscription", supported by the serving network.  If no API is supported by the serving network, an empty apiCaps shall be provided. | API\_support\_capability\_notification |
| nSStatusInfo | SACEventStatus | 0..1 | If the "monitoringType" attribute is set to "NUM\_OF\_REGD\_UES" or "NUM\_OF\_ESTD\_PDU\_SESSIONS", this parameter shall be included to indicate the current network slice status information for the concerned network slice.  (NOTE 3) | NSAC |
| afServiceId | string | 0..1 | Contains the identifier of the service to which the NSAC reporting is related.  It shall be provided only if it is present in the related NSAC subscription request and the "monitoringType" attribute is set to either "NUM\_OF\_REGD\_UES" or "NUM\_OF\_ESTD\_PDU\_SESSIONS". | NSAC |
| servLevelDevId | string | 0..1 | If "monitoringType" is "AREA\_OF\_INTEREST" or "NUMBER\_OF\_UES\_IN\_AN\_AREA" and "subType" indicate "AERIAL\_UE", this parameter may be included to identify the UAV. | UAV |
| uavPresInd | boolean | 0..1 | If "monitoringType" is "AREA\_OF\_INTEREST", this parameter shall be set to true if the specified UAV is in the monitoring area. Set to false or omitted otherwise. | UAV |
| groupMembListChanges | GroupMembListChanges | 0..1 | Contains information on the change(s) to the group members list.  This attribute shall be present only if the "monitoringType" attribute is set to "GROUP\_MEMBER\_LIST\_CHANGE". | GMEC |
| sessInactiveTime | DurationSec | 0..1 | The value of the session inactivity timer.  This attribute shall be present only if the "monitoringType" attribute is set to "SESSION\_INACTIVITY\_TIME". | DataTransfer |
| trafficInfo | TrafficInformation | 0..1 | The value of the UL/DL data rate and/or Traffic volume.  This attribute shall be present only if the "monitoringType" attribute is set to "TRAFFIC\_VOLUME” and/or "UL\_DL\_DATA\_RATE". | DataTransfer |
| NOTE 1: Properties marked with a feature as defined in clause 5.3.4 are applicable as described in clause 5.2.7. If no features are indicated, the related property applies for all the features.  NOTE 2: Identifies the user for which the event occurred. At least one of the properties shall be included.  NOTE 3: If the "eNSAC" feature is supported, the "SACEventStatus" data type shall include an indication to report either the current number of registered UEs or the current number of UEs with at least one PDU session/PDN connection. | | | | |

\*\*\* 2nd Change \*\*\*

# A.3 MonitoringEvent API

openapi: 3.0.0

info:

title: 3gpp-monitoring-event

version: 1.3.0

description: |

API for Monitoring Event.

© 2024, 3GPP Organizational Partners (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC).

All rights reserved.

externalDocs:

description: 3GPP TS 29.122 V18.6.0 T8 reference point for Northbound APIs

url: 'https://www.3gpp.org/ftp/Specs/archive/29\_series/29.122/'

security:

- {}

- oAuth2ClientCredentials: []

servers:

- url: '{apiRoot}/3gpp-monitoring-event/v1'

variables:

apiRoot:

default: https://example.com

description: apiRoot as defined in clause 5.2.4 of 3GPP TS 29.122.

paths:

/{scsAsId}/subscriptions:

get:

summary: Read all or queried active subscriptions for the SCS/AS.

operationId: FetchAllMonitoringEventSubscriptions

tags:

- Monitoring Event Subscriptions

parameters:

- name: scsAsId

in: path

description: Identifier of the SCS/AS

required: true

schema:

type: string

- name: ip-addrs

in: query

description: The IP address(es) of the requested UE(s).

required: false

content:

application/json:

schema:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/IpAddr'

minItems: 1

- name: ip-domain

in: query

description: >

The IPv4 address domain identifier. The attribute may only be provided if IPv4 address

is included in the ip-addrs query parameter.

required: false

schema:

type: string

- name: mac-addrs

in: query

description: The MAC address(es) of the requested UE(s).

required: false

schema:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

minItems: 1

responses:

'200':

description: OK (Successful get all or queried active subscriptions for the SCS/AS)

content:

application/json:

schema:

type: array

items:

$ref: '#/components/schemas/MonitoringEventSubscription'

minItems: 0

description: Monitoring event subscriptions

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29122\_CommonData.yaml#/components/responses/404'

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29122\_CommonData.yaml#/components/responses/default'

post:

summary: Creates a new subscription resource for monitoring event notification.

operationId: CreateMonitoringEventSubscription

tags:

- Monitoring Event Subscriptions

parameters:

- name: scsAsId

in: path

description: Identifier of the SCS/AS

required: true

schema:

type: string

requestBody:

description: Subscription for notification about monitoring event

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/MonitoringEventSubscription'

callbacks:

notificationDestination:

'{$request.body#/notificationDestination}':

post:

requestBody: # contents of the callback message

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/MonitoringNotification'

responses:

'204':

description: No Content (successful notification)

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29122\_CommonData.yaml#/components/responses/404'

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29122\_CommonData.yaml#/components/responses/default'

UserConsentRevocationNotif:

'{$request.body#/revocationNotifUri}':

post:

requestBody:

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/ConsentRevocNotif'

responses:

'204':

description: No Content (successful notification).

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29122\_CommonData.yaml#/components/responses/404'

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29122\_CommonData.yaml#/components/responses/default'

responses:

'201':

description: Created (Successful creation of subscription)

content:

application/json:

schema:

$ref: '#/components/schemas/MonitoringEventSubscription'

headers:

Location:

description: 'Contains the URI of the newly created resource'

required: true

schema:

type: string

'200':

description: The operation is successful and immediate report is included.

content:

application/json:

schema:

oneOf:

- $ref: '#/components/schemas/MonitoringEventReport'

- $ref: '#/components/schemas/MonitoringEventReports'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29122\_CommonData.yaml#/components/responses/404'

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29122\_CommonData.yaml#/components/responses/default'

/{scsAsId}/subscriptions/{subscriptionId}:

get:

summary: Read an active subscriptions for the SCS/AS and the subscription Id.

operationId: FetchIndMonitoringEventSubscription

tags:

- Individual Monitoring Event Subscription

parameters:

- name: scsAsId

in: path

description: Identifier of the SCS/AS

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

responses:

'200':

description: OK (Successful get the active subscription)

content:

application/json:

schema:

$ref: '#/components/schemas/MonitoringEventSubscription'

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29122\_CommonData.yaml#/components/responses/404'

'406':

$ref: 'TS29122\_CommonData.yaml#/components/responses/406'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29122\_CommonData.yaml#/components/responses/default'

put:

summary: Updates/replaces an existing subscription resource.

operationId: UpdateIndMonitoringEventSubscription

tags:

- Individual Monitoring Event Subscription

parameters:

- name: scsAsId

in: path

description: Identifier of the SCS/AS

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

requestBody:

description: Parameters to update/replace the existing subscription

required: true

content:

application/json:

schema:

$ref: '#/components/schemas/MonitoringEventSubscription'

responses:

'200':

description: OK (Successful update of the subscription)

content:

application/json:

schema:

$ref: '#/components/schemas/MonitoringEventSubscription'

'204':

description: No Content (Successful update of the subscription)

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29122\_CommonData.yaml#/components/responses/404'

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29122\_CommonData.yaml#/components/responses/default'

patch:

summary: Modifies an existing subscription of monitoring event.

operationId: ModifyIndMonitoringEventSubscription

tags:

- Individual Monitoring Event Subscription

parameters:

- name: scsAsId

in: path

description: Identifier of the SCS/AS.

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource.

required: true

schema:

type: string

requestBody:

description: >

This is used for PATCH request for partial cancellation and/or partial addition of certain

UE(s) within an active group.

required: true

content:

application/json-patch+json:

schema:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/PatchItem'

minItems: 1

responses:

'204':

description: The resource was modified successfully.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29122\_CommonData.yaml#/components/responses/404'

'411':

$ref: 'TS29122\_CommonData.yaml#/components/responses/411'

'413':

$ref: 'TS29122\_CommonData.yaml#/components/responses/413'

'415':

$ref: 'TS29122\_CommonData.yaml#/components/responses/415'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29122\_CommonData.yaml#/components/responses/default'

delete:

summary: Deletes an already existing monitoring event subscription.

operationId: DeleteIndMonitoringEventSubscription

tags:

- Individual Monitoring Event Subscription

parameters:

- name: scsAsId

in: path

description: Identifier of the SCS/AS

required: true

schema:

type: string

- name: subscriptionId

in: path

description: Identifier of the subscription resource

required: true

schema:

type: string

responses:

'204':

description: No Content (Successful deletion of the existing subscription)

'200':

description: OK (Successful deletion of the existing subscription)

content:

application/json:

schema:

type: array

items:

$ref: '#/components/schemas/MonitoringEventReport'

minItems: 1

description: >

The subscription was terminated successfully, the monitoring event report(s)

shall be included if received.

'307':

$ref: 'TS29122\_CommonData.yaml#/components/responses/307'

'308':

$ref: 'TS29122\_CommonData.yaml#/components/responses/308'

'400':

$ref: 'TS29122\_CommonData.yaml#/components/responses/400'

'401':

$ref: 'TS29122\_CommonData.yaml#/components/responses/401'

'403':

$ref: 'TS29122\_CommonData.yaml#/components/responses/403'

'404':

$ref: 'TS29122\_CommonData.yaml#/components/responses/404'

'429':

$ref: 'TS29122\_CommonData.yaml#/components/responses/429'

'500':

$ref: 'TS29122\_CommonData.yaml#/components/responses/500'

'503':

$ref: 'TS29122\_CommonData.yaml#/components/responses/503'

default:

$ref: 'TS29122\_CommonData.yaml#/components/responses/default'

components:

securitySchemes:

oAuth2ClientCredentials:

type: oauth2

flows:

clientCredentials:

tokenUrl: '{tokenUrl}'

scopes: {}

schemas:

MonitoringEventSubscription:

description: Represents a subscription to event(s) monitoring.

type: object

properties:

self:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Link'

supportedFeatures:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

mtcProviderId:

type: string

description: Identifies the MTC Service Provider and/or MTC Application.

appIds:

type: array

items:

type: string

description: Identifies the Application Identifier(s)

minItems: 1

externalId:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

msisdn:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

addedExternalIds:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

minItems: 1

description: Indicates the added external Identifier(s) within the active group.

addedMsisdns:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

minItems: 1

description: Indicates the added MSISDN(s) within the active group.

excludedExternalIds:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

minItems: 1

description: Indicates cancellation of the external Identifier(s) within the active group.

excludedMsisdns:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

minItems: 1

description: Indicates cancellation of the MSISDN(s) within the active group.

externalGroupId:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalGroupId'

addExtGroupId:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalGroupId'

minItems: 2

ipv4Addr:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv4Addr'

ipv6Addr:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv6Addr'

dnn:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Dnn'

notificationDestination:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Link'

requestTestNotification:

type: boolean

description: >

Set to true by the SCS/AS to request the SCEF to send a test notification

as defined in clause 5.2.5.3. Set to false by the SCS/AS indicates not request SCEF to

send a test notification, default false if omitted otherwise.

websockNotifConfig:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/WebsockNotifConfig'

monitoringType:

$ref: '#/components/schemas/MonitoringType'

maximumNumberOfReports:

type: integer

minimum: 1

description: >

Identifies the maximum number of event reports to be generated by the HSS, MME/SGSN

as specified in clause 5.6.0 of 3GPP TS 23.682.

monitorExpireTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DateTime'

repPeriod:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

groupReportGuardTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

maximumDetectionTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

reachabilityType:

$ref: '#/components/schemas/ReachabilityType'

maximumLatency:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

maximumResponseTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

suggestedNumberOfDlPackets:

type: integer

minimum: 0

description: >

If "monitoringType" is "UE\_REACHABILITY", this parameter may be included to identify

the number of packets that the serving gateway shall buffer in case that

the UE is not reachable.

idleStatusIndication:

type: boolean

description: >

If "monitoringType" is set to "UE\_REACHABILITY" or "AVAILABILITY\_AFTER\_DDN\_FAILURE",

this parameter may be included to indicate the notification of when a UE, for which PSM

is enabled, transitions into idle mode. "true" indicates enabling of notification;

"false" indicate no need to notify. Default value is "false" if omitted.

locationType:

$ref: '#/components/schemas/LocationType'

accuracy:

$ref: '#/components/schemas/Accuracy'

minimumReportInterval:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

maxRptExpireIntvl:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

samplingInterval:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

reportingLocEstInd:

type: boolean

description: >

Indicates whether to request the location estimate for event reporting. If

"monitoringType" is "LOCATION\_REPORTING", this parameter may be included to indicate

whether event reporting requires the location information. If set to true, the location

estimation information shall be included in event reporting. If set to "false",

indicates the location estimation information shall not be included in event reporting.

Default "false" if omitted.

linearDistance:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/LinearDistance'

locQoS:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/LocationQoS'

svcId:

$ref: 'TS29515\_Ngmlc\_Location.yaml#/components/schemas/ServiceIdentity'

ldrType:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/LdrType'

velocityRequested:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/VelocityRequested'

maxAgeOfLocEst:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/AgeOfLocationEstimate'

locTimeWindow:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/TimeWindow'

supportedGADShapes:

type: array

items:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/SupportedGADShapes'

codeWord:

$ref: 'TS29515\_Ngmlc\_Location.yaml#/components/schemas/CodeWord'

upLocRepIndAf:

description: >

Indicates whether location reporting over user plane is requested or not.

"true" indicates the location reporting over user plane is requested.

"false" indicates the location reporting over user plane is not requested.

Default value is "false" if omitted.

type: boolean

default: false

upLocRepAddrAf:

$ref: '#/components/schemas/UpLocRepAddrAfRm'

associationType:

$ref: '#/components/schemas/AssociationType'

plmnIndication:

type: boolean

description: >

If "monitoringType" is "ROAMING\_STATUS", this parameter may be included to indicate the

notification of UE's Serving PLMN ID. Value "true" indicates enabling of notification;

"false" indicates disabling of notification. Default value is "false" if omitted.

locationArea:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/LocationArea'

locationArea5G:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/LocationArea5G'

dddTraDescriptors:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/DddTrafficDescriptor'

minItems: 1

dddStati:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/DlDataDeliveryStatus'

minItems: 1

apiNames:

type: array

items:

type: string

minItems: 1

monitoringEventReport:

$ref: '#/components/schemas/MonitoringEventReport'

snssai:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Snssai'

tgtNsThreshold:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/SACInfo'

nsRepFormat:

$ref: '#/components/schemas/SACRepFormat'

afServiceId:

type: string

immediateRep:

type: boolean

description: >

Indicates whether an immediate reporting is requested or not.

"true" indicate an immediate reporting is requested.

"false" indicate an immediate reporting is not requested.

Default value "false" if omitted.

uavPolicy:

$ref: '#/components/schemas/UavPolicy'

sesEstInd:

type: boolean

description: >

Set to true by the SCS/AS so that only UAV's with "PDU session established for DNN(s)

subject to aerial service" are to be listed in the Event report. Set to false or default

false if omitted otherwise.

subType:

$ref: '#/components/schemas/SubType'

addnMonTypes:

type: array

items:

$ref: '#/components/schemas/MonitoringType'

addnMonEventReports:

type: array

items:

$ref: '#/components/schemas/MonitoringEventReport'

ueIpAddr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/IpAddr'

ueMacAddr:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

revocationNotifUri:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Uri'

reqRangSlRes:

type: array

items:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/RangingSlResult'

minItems: 1

relatedUes:

type: object

additionalProperties:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/RelatedUe'

minProperties: 1

description: >

Contains a list of the related UE(s) for the ranging and sidelink positioning and the

corresponding information.

The key of the map shall be a any unique string set to the value.

required:

- notificationDestination

- monitoringType

anyOf:

- required: [maximumNumberOfReports]

- required: [monitorExpireTime]

MonitoringNotification:

description: Represents an event monitoring notification.

type: object

properties:

subscription:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Link'

configResults:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ConfigResult'

minItems: 1

description: Each element identifies a notification of grouping configuration result.

monitoringEventReports:

type: array

items:

$ref: '#/components/schemas/MonitoringEventReport'

minItems: 1

description: Monitoring event reports.

addedExternalIds:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

minItems: 1

description: >

Identifies the added external Identifier(s) within the active group via

the "externalGroupId" attribute within the MonitoringEventSubscription data type.

addedMsisdns:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

minItems: 1

description: >

Identifies the added MSISDN(s) within the active group via the "externalGroupId"

attribute within the MonitoringEventSubscription data type.

cancelExternalIds:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

minItems: 1

description: >

Identifies the cancelled external Identifier(s) within the active group via

the "externalGroupId" attribute within the MonitoringEventSubscription data type.

cancelMsisdns:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

minItems: 1

description: >

Identifies the cancelled MSISDN(s) within the active group via the "externalGroupId"

attribute within the MonitoringEventSubscription data type.

cancelInd:

type: boolean

description: >

Indicates whether to request to cancel the corresponding monitoring subscription.

Set to false or omitted otherwise.

appliedParam:

$ref: '#/components/schemas/AppliedParameterConfiguration'

required:

- subscription

MonitoringEventReport:

description: Represents an event monitoring report.

type: object

properties:

imeiChange:

$ref: '#/components/schemas/AssociationType'

externalId:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

appId:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/ApplicationId'

pduSessInfo:

$ref: 'TS29523\_Npcf\_EventExposure.yaml#/components/schemas/PduSessionInformation'

idleStatusInfo:

$ref: '#/components/schemas/IdleStatusInfo'

locationInfo:

$ref: '#/components/schemas/LocationInfo'

locFailureCause:

$ref: '#/components/schemas/LocationFailureCause'

lossOfConnectReason:

type: integer

description: >

If "monitoringType" is "LOSS\_OF\_CONNECTIVITY", this parameter shall be included

if available to identify the reason why loss of connectivity is reported.

See also 3GPP TS 29.336 clause 8.4.58 for pre-5G.

unavailPerDur:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

maxUEAvailabilityTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DateTime'

msisdn:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

monitoringType:

$ref: '#/components/schemas/MonitoringType'

uePerLocationReport:

$ref: '#/components/schemas/UePerLocationReport'

plmnId:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/PlmnId'

reachabilityType:

$ref: '#/components/schemas/ReachabilityType'

roamingStatus:

type: boolean

description: >

If "monitoringType" is "ROAMING\_STATUS", this parameter shall be set to "true"

if the new serving PLMN is different from the HPLMN. Set to false or

omitted otherwise.

failureCause:

$ref: '#/components/schemas/FailureCause'

eventTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DateTime'

pdnConnInfoList:

type: array

items:

$ref: '#/components/schemas/PdnConnectionInformation'

minItems: 1

dddStatus:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/DlDataDeliveryStatus'

dddTrafDescriptor:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/DddTrafficDescriptor'

maxWaitTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DateTime'

apiCaps:

type: array

items:

$ref: '#/components/schemas/ApiCapabilityInfo'

minItems: 0

nSStatusInfo:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/SACEventStatus'

afServiceId:

type: string

servLevelDevId:

type: string

description: >

If "monitoringType" is "AREA\_OF\_INTEREST", this parameter may be included

to identify the UAV.

uavPresInd:

type: boolean

description: >

If "monitoringType" is "AREA\_OF\_INTEREST", this parameter shall be set to true

if the specified UAV is in the monitoring area. Set to false or omitted otherwise.

groupMembListChanges:

$ref: '#/components/schemas/GroupMembListChanges'

sessInactiveTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

trafficInfo:

$ref: 'TS29520\_Nnwdaf\_EventsSubscription.yaml#/components/schemas/TrafficInformation'

required:

- monitoringType

MonitoringEventReports:

description: Represents a set of event monitoring reports.

type: object

properties:

monitoringEventReports:

type: array

items:

$ref: '#/components/schemas/MonitoringEventReport'

minItems: 1

required:

- monitoringEventReports

IdleStatusInfo:

description: Represents the information relevant to when the UE transitions into idle mode.

type: object

properties:

activeTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

edrxCycleLength:

format: float

type: number

minimum: 0

suggestedNumberOfDlPackets:

type: integer

minimum: 0

description: >

Identifies the number of packets shall be buffered in the serving gateway.

It shall be present if the idle status indication is requested by the SCS/AS

with "idleStatusIndication" in the "monitoringEventSubscription" sets to "true".

idleStatusTimestamp:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DateTime'

periodicAUTimer:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

UePerLocationReport:

description: Represents the number of UEs found at the indicated location.

type: object

properties:

ueCount:

type: integer

minimum: 0

description: Identifies the number of UEs.

externalIds:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

minItems: 1

description: Each element uniquely identifies a user.

msisdns:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

minItems: 1

description: Each element identifies the MS internal PSTN/ISDN number allocated for a UE.

servLevelDevIds:

type: array

items:

type: string

minItems: 1

description: Each element uniquely identifies a UAV.

required:

- ueCount

LocationInfo:

description: Represents the user location information.

type: object

properties:

ageOfLocationInfo:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationMin'

cellId:

type: string

description: >

Indicates the Cell Global Identification of the user which identifies the cell the UE

is registered.

enodeBId:

type: string

description: Indicates the eNodeB in which the UE is currently located.

routingAreaId:

type: string

description: Identifies the Routing Area Identity of the user where the UE is located.

trackingAreaId:

type: string

description: Identifies the Tracking Area Identity of the user where the UE is located.

plmnId:

type: string

description: Identifies the PLMN Identity of the user where the UE is located.

twanId:

type: string

description: Identifies the TWAN Identity of the user where the UE is located.

userLocation:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/UserLocation'

geographicArea:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/GeographicArea'

civicAddress:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/CivicAddress'

positionMethod:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/PositioningMethod'

qosFulfilInd:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/AccuracyFulfilmentIndicator'

ueVelocity:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/VelocityEstimate'

ldrType:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/LdrType'

achievedQos:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/MinorLocationQoS'

relAppLayerId:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/ApplicationlayerId'

rangeDirection:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/RangeDirection'

twoDRelLoc:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/2DRelativeLocation'

threeDRelLoc:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/3DRelativeLocation'

relVelocity:

$ref: 'TS29572\_Nlmf\_Location.yaml#/components/schemas/VelocityEstimate'

upCumEvtRep:

$ref: '#/components/schemas/UpCumEvtRep'

FailureCause:

description: Represents the reason of communication failure.

type: object

properties:

bssgpCause:

type: integer

description: >

Identifies a non-transparent copy of the BSSGP cause code. Refer to 3GPP TS 29.128.

causeType:

type: integer

description: Identify the type of the S1AP-Cause. Refer to 3GPP TS 29.128.

gmmCause:

type: integer

description: >

Identifies a non-transparent copy of the GMM cause code. Refer to 3GPP TS 29.128.

ranapCause:

type: integer

description: >

Identifies a non-transparent copy of the RANAP cause code. Refer to 3GPP TS 29.128.

ranNasCause:

type: string

description: >

Indicates RAN and/or NAS release cause code information, TWAN release cause code

information or untrusted WLAN release cause code information. Refer to 3GPP TS 29.214.

s1ApCause:

type: integer

description: >

Identifies a non-transparent copy of the S1AP cause code. Refer to 3GPP TS 29.128.

smCause:

type: integer

description: >

Identifies a non-transparent copy of the SM cause code. Refer to 3GPP TS 29.128.

PdnConnectionInformation:

description: Represents the PDN connection information of the UE.

type: object

properties:

status:

$ref: '#/components/schemas/PdnConnectionStatus'

apn:

type: string

description: >

Identify the APN, it is depending on the SCEF local configuration whether or

not this attribute is sent to the SCS/AS.

pdnType:

$ref: '#/components/schemas/PdnType'

interfaceInd:

$ref: '#/components/schemas/InterfaceIndication'

ipv4Addr:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv4Addr'

ipv6Addrs:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Ipv6Addr'

minItems: 1

macAddrs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/MacAddr48'

minItems: 1

required:

- status

- pdnType

AppliedParameterConfiguration:

description: Represents the parameter configuration applied in the network.

type: object

properties:

externalIds:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

minItems: 1

description: Each element uniquely identifies a user.

msisdns:

type: array

items:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

minItems: 1

description: Each element identifies the MS internal PSTN/ISDN number allocated for a UE.

maximumLatency:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

maximumResponseTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

maximumDetectionTime:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/DurationSec'

ApiCapabilityInfo:

description: Represents the availability information of supported API.

type: object

properties:

apiName:

type: string

suppFeat:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/SupportedFeatures'

required:

- apiName

- suppFeat

UavPolicy:

description: >

Represents the policy information included in the UAV presence monitoring request.

type: object

properties:

uavMoveInd:

type: boolean

revokeInd:

type: boolean

required:

- uavMoveInd

- revokeInd

ConsentRevocNotif:

description: >

Represents the user consent revocation information conveyed in a user consent

revocation notification.

type: object

properties:

subscriptionId:

type: string

consentsRevoked:

type: array

items:

$ref: '#/components/schemas/ConsentRevoked'

minItems: 1

required:

- subscriptionId

- consentsRevoked

ConsentRevoked:

description: Represents the information related to a revoked user consent.

type: object

properties:

ucPurpose:

$ref: 'TS29503\_Nudm\_SDM.yaml#/components/schemas/UcPurpose'

externalId:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/ExternalId'

msisdn:

$ref: 'TS29122\_CommonData.yaml#/components/schemas/Msisdn'

required:

- ucPurpose

oneOf:

- required: [externalId]

- required: [msisdn]

GroupMembListChanges:

description: Represents information on the change(s) to a group's members list.

type: object

properties:

addedUEs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Gpsi'

minItems: 1

removedUEs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Gpsi'

minItems: 1

anyOf:

- required: [addedUEs]

- required: [removedUEs]

UpLocRepAddrAfRm:

description: Represents the user plane addressing information.

type: object

properties:

ipv4Addrs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv4Addr'

minItems: 1

ipv6Addrs:

type: array

items:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Ipv6Addr'

minItems: 1

fqdn:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Fqdn'

nullable: true

anyOf:

- required: [ipv4Addrs]

- required: [ipv6Addrs]

- required: [fqdn]

UpCumEvtRep:

description: Represents the cumulative event report.

type: object

properties:

upLocRepStat:

$ref: 'TS29571\_CommonData.yaml#/components/schemas/Uinteger'

#

# ENUMS

#

MonitoringType:

anyOf:

- type: string

enum:

- LOSS\_OF\_CONNECTIVITY

- UE\_REACHABILITY

- LOCATION\_REPORTING

- CHANGE\_OF\_IMSI\_IMEI\_ASSOCIATION

- ROAMING\_STATUS

- COMMUNICATION\_FAILURE

- AVAILABILITY\_AFTER\_DDN\_FAILURE

- NUMBER\_OF\_UES\_IN\_AN\_AREA

- PDN\_CONNECTIVITY\_STATUS

- DOWNLINK\_DATA\_DELIVERY\_STATUS

- API\_SUPPORT\_CAPABILITY

- NUM\_OF\_REGD\_UES

- NUM\_OF\_ESTD\_PDU\_SESSIONS

- AREA\_OF\_INTEREST

- GROUP\_MEMBER\_LIST\_CHANGE

- APPLICATION\_START

- APPLICATION\_STOP

- SESSION\_INACTIVITY\_TIME

- TRAFFIC\_VOLUME

- UL\_DL\_DATA\_RATE

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents a monitoring event type.

Possible values are

- LOSS\_OF\_CONNECTIVITY: The SCS/AS requests to be notified when the 3GPP network detects

that the UE is no longer reachable for signalling or user plane communication

- UE\_REACHABILITY: The SCS/AS requests to be notified when the UE becomes reachable for

sending either SMS or downlink data to the UE

- LOCATION\_REPORTING: The SCS/AS requests to be notified of the current location or

the last known location of the UE

- CHANGE\_OF\_IMSI\_IMEI\_ASSOCIATION: The SCS/AS requests to be notified when the association

of an ME (IMEI(SV)) that uses a specific subscription (IMSI) is changed

- ROAMING\_STATUS: The SCS/AS queries the UE's current roaming status and requests to get

notified when the status changes

- COMMUNICATION\_FAILURE: The SCS/AS requests to be notified of communication failure events

- AVAILABILITY\_AFTER\_DDN\_FAILURE: The SCS/AS requests to be notified when the UE has become

available after a DDN failure

- NUMBER\_OF\_UES\_IN\_AN\_AREA: The SCS/AS requests to be notified the number of UEs in a given

geographic area

- PDN\_CONNECTIVITY\_STATUS: The SCS/AS requests to be notified when the 3GPP network detects

that the UE’s PDN connection is set up or torn down

- DOWNLINK\_DATA\_DELIVERY\_STATUS: The AF requests to be notified when the 3GPP network

detects that the downlink data delivery status is changed.

- API\_SUPPORT\_CAPABILITY: The SCS/AS requests to be notified of the availability of support

of service APIs.

- NUM\_OF\_REGD\_UES: The AF requests to be notified of the current number of registered UEs

for a network slice.

- NUM\_OF\_ESTD\_PDU\_SESSIONS: The AF requests to be notified of the current number of

established PDU Sessions for a network slice.

- AREA\_OF\_INTEREST: The SCS/AS requests to be notified when the UE(i.e. UAV) moves in or

out of the geographic area.

- GROUP\_MEMBER\_LIST\_CHANGE: The AF requests to be notified of the changes to a group members

list.

- APPLICATION\_START: The AF requests to be notified about the start of application traffic

has been detected.

- APPLICATION\_STOP: The AF requests to be notified about the stop of application traffic

has been detected.

- SESSION\_INACTIVITY\_TIME: The AF requests to be notified of session inactivity time of the

measured UE PDU Session.

- TRAFFIC\_VOLUME: The AF requests to be notified of traffic volume of the measured UE.

- UL\_DL\_DATA\_RATE: The AF requests to be notified of uplink and downlink data rate of the

measured UE.

ReachabilityType:

anyOf:

- type: string

enum:

- SMS

- DATA

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents a reachability type.

Possible values are

- SMS: The SCS/AS requests to be notified when the UE becomes reachable for sending SMS

to the UE

- DATA: The SCS/AS requests to be notified when the UE becomes reachable for sending

downlink data to the UE.

LocationType:

anyOf:

- type: string

enum:

- CURRENT\_LOCATION

- LAST\_KNOWN\_LOCATION

- CURRENT\_OR\_LAST\_KNOWN\_LOCATION

- INITIAL\_LOCATION

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents a location type.

Possible values are

- CURRENT\_LOCATION: The SCS/AS requests to be notified for current location

- LAST\_KNOWN\_LOCATION: The SCS/AS requests to be notified for last known location

- CURRENT\_OR\_LAST\_KNOWN\_LOCATION: The AF requests the current or last known location

- INITIAL\_LOCATION: The AF requests the initial location

AssociationType:

anyOf:

- type: string

enum:

- IMEI

- IMEISV

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents an IMEI or IMEISV to IMSI association.

Possible values are

- IMEI: The value shall be used when the change of IMSI-IMEI association shall be detected

- IMEISV: The value shall be used when the change of IMSI-IMEISV association shall be

detected

Accuracy:

anyOf:

- type: string

enum:

- CGI\_ECGI

- ENODEB

- TA\_RA

- PLMN

- TWAN\_ID

- GEO\_AREA

- CIVIC\_ADDR

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents a desired granularity of accuracy of the requested location information.

Possible values are

- CGI\_ECGI: The SCS/AS requests to be notified using cell level location accuracy.

- ENODEB: The SCS/AS requests to be notified using eNodeB level location accuracy.

- TA\_RA: The SCS/AS requests to be notified using TA/RA level location accuracy.

- PLMN: The SCS/AS requests to be notified using PLMN level location accuracy.

- TWAN\_ID: The SCS/AS requests to be notified using TWAN identifier level location accuracy.

- GEO\_AREA: The SCS/AS requests to be notified using the geographical area accuracy.

- CIVIC\_ADDR: The SCS/AS requests to be notified using the civic address accuracy.

PdnConnectionStatus:

anyOf:

- type: string

enum:

- CREATED

- RELEASED

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents the PDN connection status.

Possible values are

- CREATED: The PDN connection is created.

- RELEASED: The PDN connection is released.

PdnType:

anyOf:

- type: string

enum:

- IPV4

- IPV6

- IPV4V6

- NON\_IP

- ETHERNET

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents the PDN connection type.

Possible values are

- IPV4: PDN connection of IPv4 type.

- IPV6: PDN connection of IPv6 type.

- IPV4V6: PDN connection of IPv4v6 type.

- NON\_IP: PDN connection of non-IP type.

- ETHERNET: PDN connection of Ethernet type.

InterfaceIndication:

anyOf:

- type: string

enum:

- EXPOSURE\_FUNCTION

- PDN\_GATEWAY

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents the network entity used for data delivery towards the SCS/AS.

Possible values are

- EXPOSURE\_FUNCTION: SCEF is used for the PDN connection towards the SCS/AS.

- PDN\_GATEWAY: PDN gateway is used for the PDN connection towards the SCS/AS.

LocationFailureCause:

anyOf:

- type: string

enum:

- POSITIONING\_DENIED

- UNSUPPORTED\_BY\_UE

- NOT\_REGISTED\_UE

- UNSPECIFIED

- REQUESTED\_AREA\_NOT\_ALLOWED

- type: string

description: >

This string provides forward-compatibility with future extensions to the enumeration but

is not used to encode content defined in the present version of this API.

description: >

Represents the cause of location positioning failure.

Possible values are:

- POSITIONING\_DENIED: Positioning is denied.

- UNSUPPORTED\_BY\_UE: Positioning is not supported by UE.

- NOT\_REGISTED\_UE: UE is not registered.

- UNSPECIFIED: Unspecified.

- REQUESTED\_AREA\_NOT\_ALLOWED: The location request is rejected because the location area

requested by the AF for area event reporting is not allowed.

SubType:

anyOf:

- type: string

enum:

- AERIAL\_UE

- type: string

description: >

This string provides forward-compatibility with future

extensions to the enumeration but is not used to encode

content defined in the present version of this API.

description: |

Represents a subscription type.

Possible values are

- AERIAL\_UE: The UE has Aerial subscription.

SACRepFormat:

anyOf:

- type: string

enum:

- NUMERICAL

- PERCENTAGE

- type: string

description: >

This string provides forward-compatibility with future extensions to the enumeration but

is not used to encode content defined in the present version of this API.

description: Indicates the NSAC reporting format.

\*\*\* End of Changes \*\*\*